

(No Model.)

A. A. PAGE.
LATCH.

No. 477,446.

Patented June 21, 1892.

Fig. 1

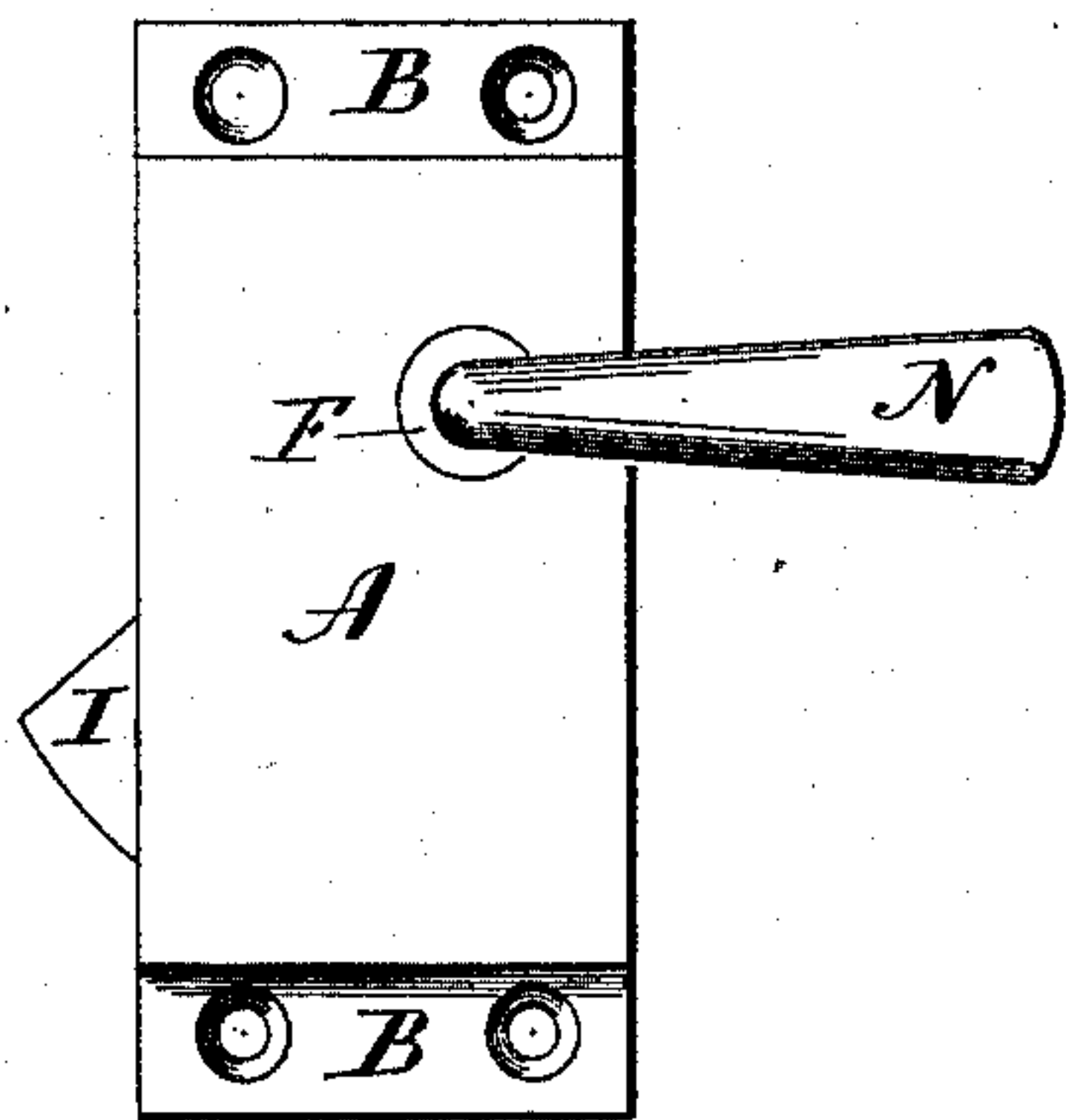


Fig. 2

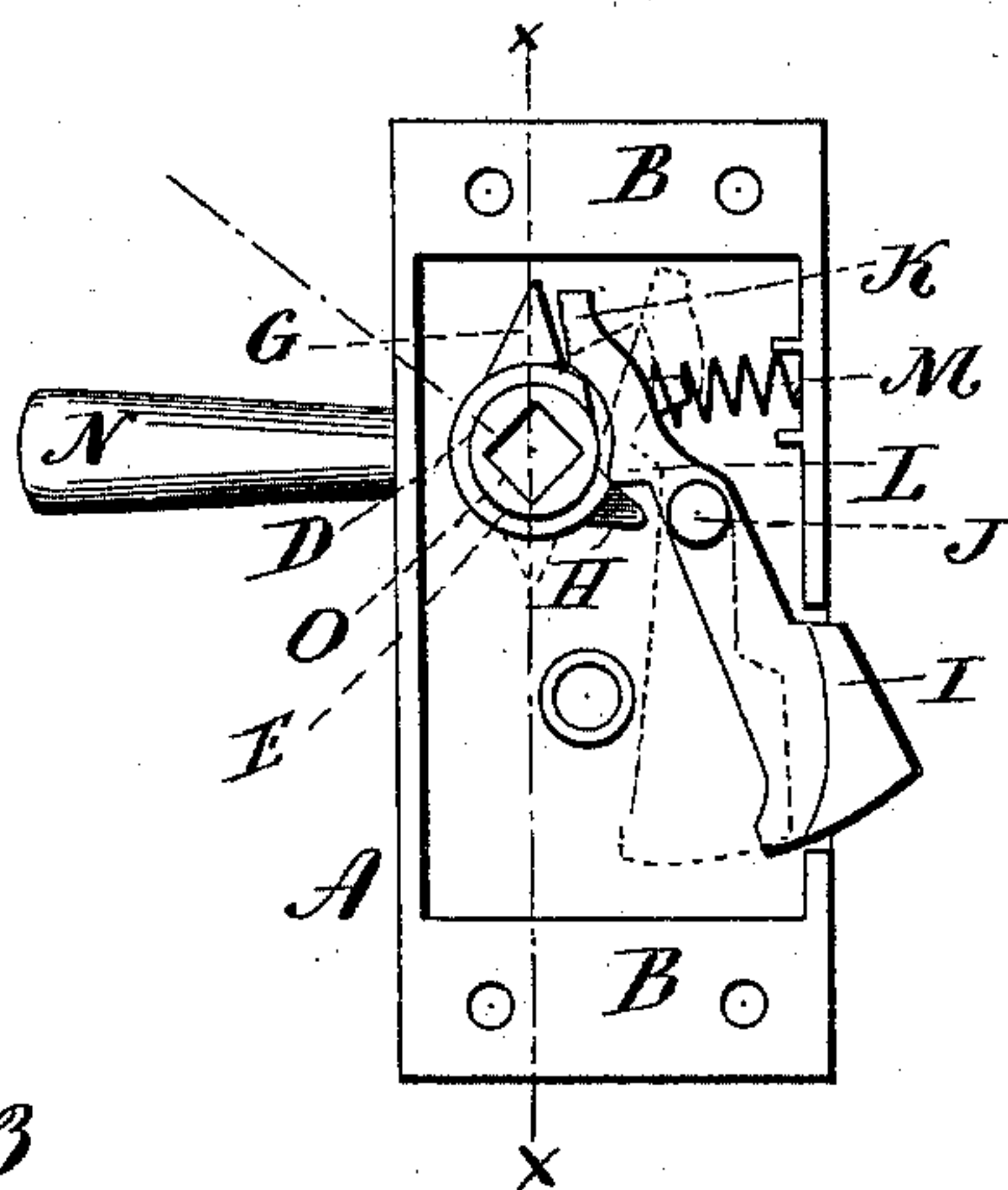


Fig. 3

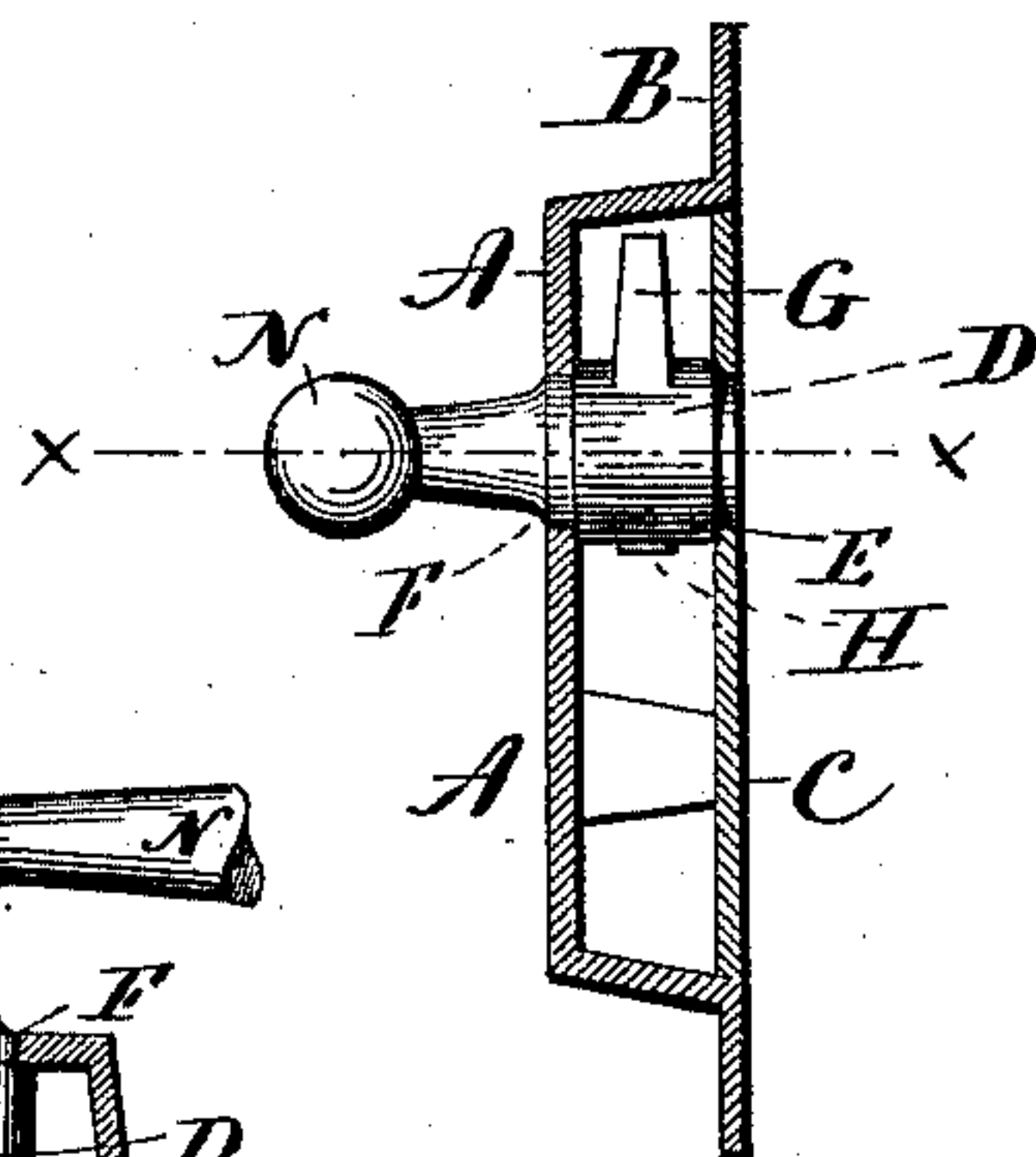


Fig. 4

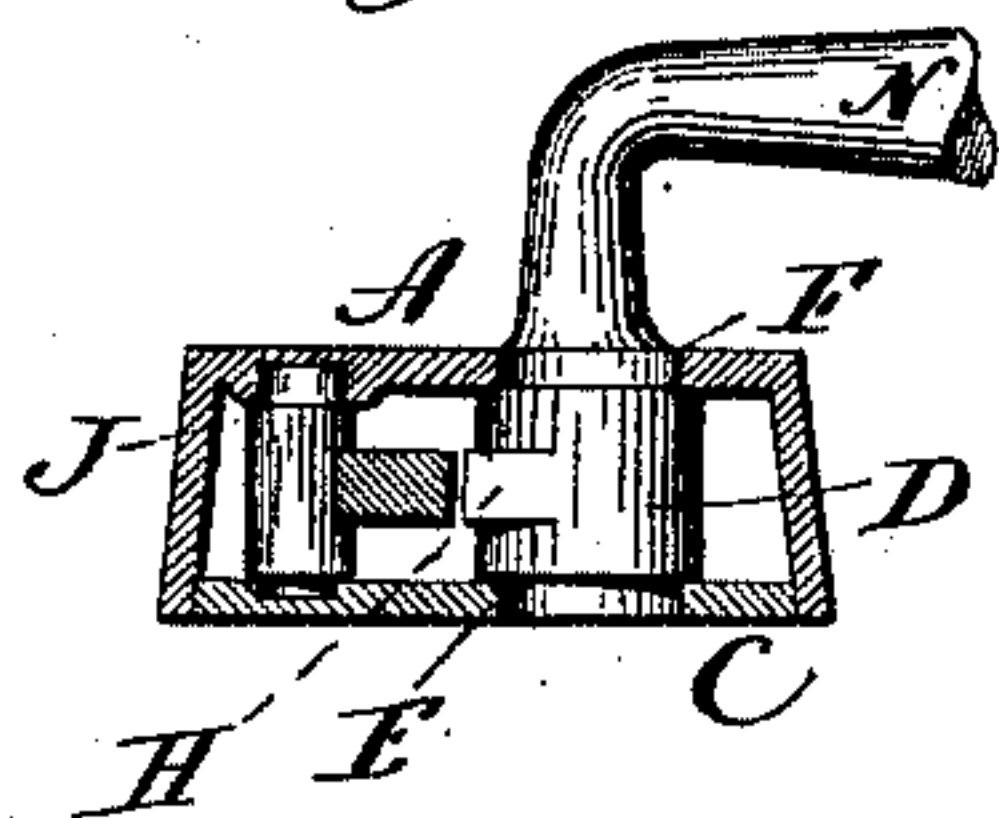
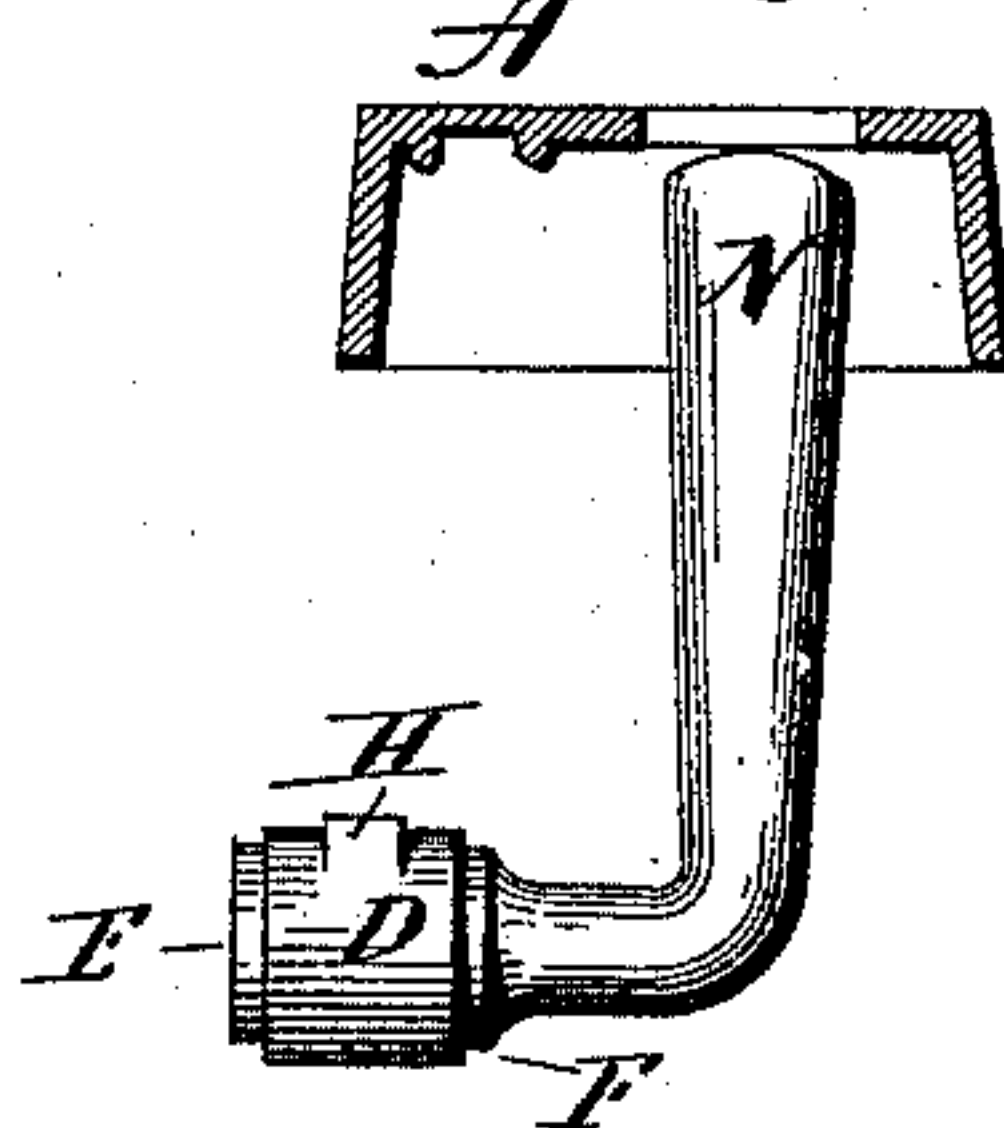


Fig. 5



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UNITED STATES PATENT OFFICE.

ALBERT A. PAGE, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE
SARGENT & COMPANY, OF SAME PLACE.

LATCH.

SPECIFICATION forming part of Letters Patent No. 477,446, dated June 21, 1892.

Application filed April 11, 1892. Serial No. 428,616. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. PAGE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Rim-Latches; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of the latch complete; Fig. 2, an inside view with the covering-plate removed; Fig. 3, a vertical central section cutting on line *xx* of Fig. 2 and looking to the right; Fig. 4, a transverse section of the case on line *xx* of Fig. 3 and showing side view of the hub and handle. Fig. 5 illustrates the manner of introducing the handle and hub to place.

This invention relates to an improvement in that class of latches in which the bolt is operated by means of a hub arranged in the case, so as to receive a partial rotation, with arms projecting from the hub to engage the latch-bolt, so that by turning the hub in either direction the bolt will be drawn inward against the pressure of a spring, which spring reacting will force the bolt outward, a handle being provided by which the rotation may be imparted to the hub to operate the latch, and particularly to that class of latches which are adapted for application upon the surface of the door, commonly called "rim-latches." In the usual construction a spindle extends into the hub, and is provided upon its outer end with a knob or other convenient handle by which the spindle may be turned. This construction necessitates some connection between the spindle and the hub, and also necessitates the manufacture of the handle independent of the spindle and hub, and consequently some means of connection between the spindle and handle.

The object of the present invention is to construct the hub, handle, and spindle integral; and the invention consists in the construction as hereinafter described, and particularly recited in the claim.

A represents the case, which is provided,

as usual, with a flange B, by which it may be secured upon the surface of the door. The rear side of the case is closed by a removable plate C, also in the usual manner, as seen in Figs. 3 and 4. D represents the hub, which is constructed at one end with a trunnion E, which takes a bearing in the covering-plate C, and with a corresponding trunnion F at the other end, which takes a bearing in the face side of the case, as usual, for this class of latches. The hub is provided with arms G and H, by which the bolt may be operated. As here represented, the bolt I is arranged to swing upon a pivot J within the case, the axis of which is parallel with the axis of the hub, the arms G H of the hub being arranged to operate upon corresponding points K L on the bolt above its pivot J, and so that by turning the hub in either direction the bolt will swing, as indicated in broken lines, Fig. 2, to draw the bolt inward, a spring M being compressed as the bolt is drawn inward, and therefore operating under its reaction to force the bolt outward. This is a common construction of bolt, and for which any of the known constructions of bolt may be substituted.

Instead of constructing the hub with an angular-shaped opening for the introduction of a spindle, and to which the knob may be applied, the hub D is constructed with an L-shaped handle N, projecting from one side, and here represented as on the face side. The handle is of L-shape, and at its shank projects axially from the hub and then turned to one side to give the L-shape, as shown.

The largest diameter of the handle N is no greater than the diameter of the opening for the bearing of the hub through that side of the case. The handle is cast integral with the knob. It is applied as seen in Fig. 5, the end of the handle being first presented to the hub-bearing opening on the inside and then the handle passed through that opening and turned to bring the hub into its position in the case and to its bearing, as seen in Fig. 4, the mechanism being introduced before or after the hub has been so introduced and then the covering-plate is applied and secured.

In operation the handle is turned up or down or right and left, as the case may be, so

as to give the required rotative movement to the hub, and as usual in this class of handles.

By this construction the hub and handle by which the hub is operated are cast in a single piece, so that all the labor and parts for the connection of the two are avoided, thus simplifying the construction of the latch to a very great extent.

The latch is peculiarly adapted for the smaller class or latches, such as used upon small doors and commonly called "cupboard-latches,"

In some cases it is desirable to apply a knob upon the reverse side. This is accomplished by making an angular-shaped longitudinal central recess in that end of the hub opposite the handle end and as indicated in broken lines at O, Fig. 2, and so that a knob may be applied thereto in the usual manner, the knob being secured to that side of the door by means of its rose.

From the foregoing it will be understood that the construction of the hub and its integral handle are applicable to the various constructions of rim-latches. The invention is,

therefore, not to be understood as limited to any particular construction of latch mechanism.

I claim—

In a latch substantially such as described, and in combination with the mechanism of the latch, a hub arranged in the case and by which the mechanism is operated, one end of the hub projecting through an opening in the case, the hub constructed with an extension through said opening and outside the case, the projection turned to one side to form a handle, and the largest diameter of the handle no greater than the diameter of the opening in the case through which the projection extends, the said handle and hub being integral and substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALBERT A. PAGE.

Witnesses:

CHAUNCEY T. LAMB,
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